

FG-20DDS 20MHz DDS Function Generator



FEATURES

- Advanced Direct Digital Synthesis (DDS) technique
- Dual output with independent channels
- Crystal oscillation reference, high frequency accuracy and high resolution
- Convenient operation with LCD
- Data storage and recall
- Output waves

SPECIFICATIONS

CHARACTERISTICS OF CHANNEL A

Frequency Range (sine) : 40μHz ~ 20MHz

WAVEFORM CHARACTERISTICS

Types : Sine, Square, Pulse, DC
 Waveform Length : 1 to 16 k points
 Amplitude Resolution : 10 bits (including sign)
 Sampling Rate : 180 MSa/s

FREQUENCY CHARACTERISTICS

Sine : 40 mHz to 20MHz
 Square/Pulse : 40 mHz to 5MHz
 Resolution : 40 mHz

CHARACTERISTICS OF SQUARE/PULSE

Rise/Fall time : 20 ns
 Overshoot : < 5%
 Square Duty Cycle : 50.0% (fixed)
 Pulse Duty Cycle : 0.00% to 99.99 %
 Pulse Width : 8 ns to 1999.9 s

OUTPUT CHARACTERISTICS

Amplitude (into 50Ω)	:	10 mVpp to 10 Vpp
Units	:	Vpp, Vrms

RESOLUTION

10 mVpp to 1 Vpp	:	1 mV
1 Vpp to 10 Vpp	:	10 mV
Offset (into 50Ω)	:	± 5 Vpk AC+DC
Output Impedance	:	typical 50Ω
Protection	:	Short-circuit protected; Overload relay automatically disables output and resumes it after the fault is fixed

MODULATION CHARACTERISTICS**AM**

Carrier Waveforms	:	Sine, Square
Modulating Waveforms	:	Waveforms of Channel B
Modulating Frequency	:	2 mHz to 20 kHz
Modulating Depth	:	0.0% to 150.0%
Source	:	Internal / External

FSK, ASK, PSK

Carrier Waveforms	:	Sine, Square
Modulating Waveforms	:	50% duty cycle square
Hop Phase	:	0° to 360 °
Hop Rate	:	10 ms to 60 s

SWEEP

Waveforms	:	Sine, Square
Typ	:	Linear Frequency Sweep, Linear Amplitude Sweep
Direction	:	Up, Down or Up-down
Start F	:	40 mHz to 20MHz
Sweep Step Time	:	10 ms to 60 s
Trigger Source	:	Internal, External or Single

ADDITION CHARACTERISTICS

A Plus B	:	Channel A plus Channel B linearly, output from Channel A
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OUTPUT CHARACTERISTICS OF CHANNEL B**WAVEFORMS**

Types	:	22 types such as Sine, Square, Triangle, Ramp, Stair, etc
Waveform Length	:	1000 points
Resolution of Amplitude	:	8 bits (sign included)
Sample Rate	:	10 MSa/s

OUTPUT CHARACTERISTICS

Amplitude (into 50Ω)	:	20 mVpp to 10 Vpp
Resolution	:	1 mV

BURST

Waveforms	:	Waveforms of Channel B
Burst Count	:	1 to 1,000,000 cycles
Internal Frequency	:	40 mHz to 500 kHz

CHARACTERISTICS OF HARMONIC WAVEFORM

Channel B functions the harmonic up to 250.0 orders of A

ACCESSORIES	:	BNC-BNC Cables, Power Chord, RS-232 cable, Instruction Manual
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